G3G160-CU09-15

EC centrifugal fan

forward-curved, single-intake

with housing (flange)

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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**G3G160-CU09-15**
Motor	**M3G055-DF**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 240
Frequency	Hz	50/60
Method of obtaining data		ml
Speed (rpm)	min^{-1}	2100
Power consumption	W	170
Current draw	A	1.35
Min. back pressure	Pa	0
Min. back pressure	inH2O	0
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	50

ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment
Subject to change

Data according to ErP Directive

		Actual	Req. 2015
01 Overall efficiency η_{es}	%	46.4	32.1
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		58.3	44
05 Variable speed drive		Yes	

09 Power consumption P_{ed}	kW	0.13
09 Air flow q_v	m^3/h	350
09 Pressure increase p_{fs}	Pa	558
10 Speed (rpm) n	min^{-1}	2730
11 Specific ratio*		1.01

Data obtained at optimum efficiency level.
The ErP data is determined using a motor-impeller combination in a standardized measurement setup.

* Specific ratio = 1 + p_{fs} / 100 000 Pa

LU-139319

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Technical description

Weight	3 kg
Fan size	160 mm
Rotor surface	Thick-film passivated
Impeller material	PA plastic
Housing material	Die-cast aluminum
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"B"
Max. permitted ambient temp. for motor (transport/storage)	+ 80 °C
Min. permitted ambient temp. for motor (transport/storage)	- 40 °C
Installation position	Any
Condensation drainage holes	None, open rotor
Mode	S1
Motor bearing	Ball bearing
Technical features	- Output 10 VDC, max. 10 mA - Tach output - Power limiter - Motor current limitation - Soft start - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from the mains - Overvoltage detection - Thermal overload protection for electronics/motor - Line undervoltage detection
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Motor protection	Locked-rotor protection
With cable	Variable
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60335-1; CE

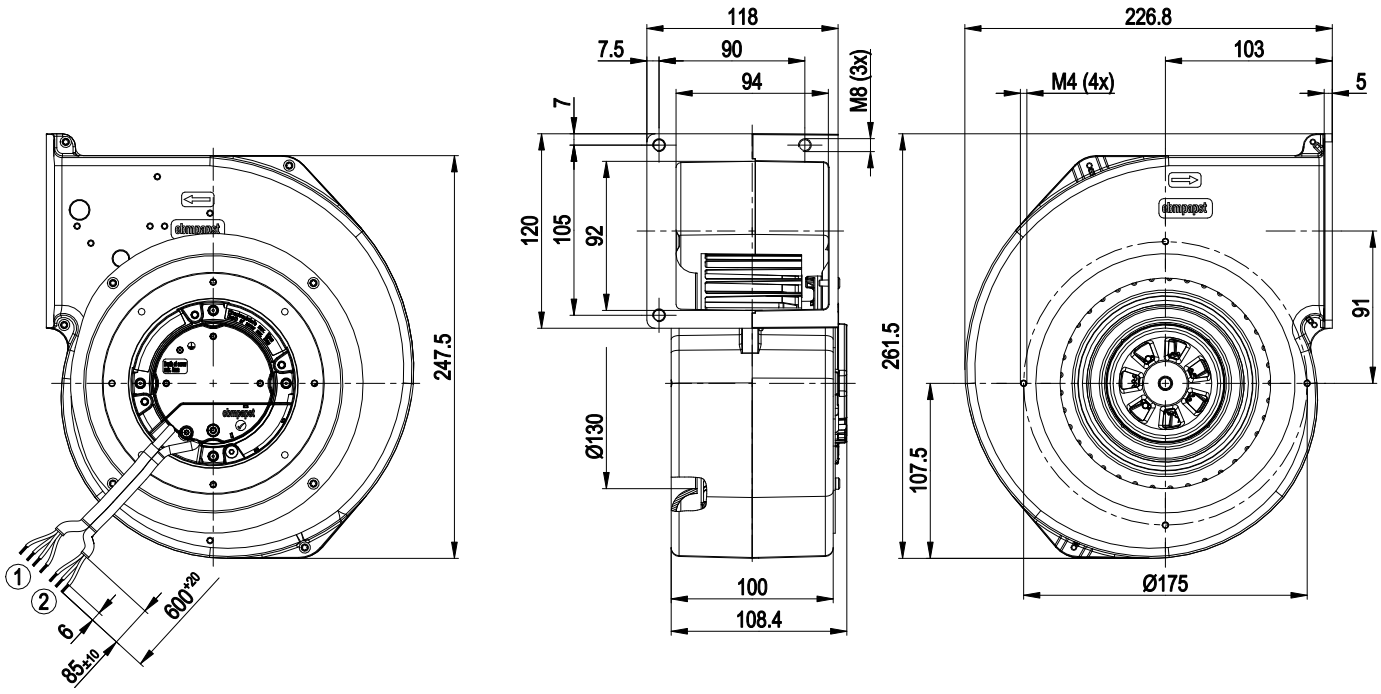
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Product drawing



1	Cable PVC AWG22, 4x crimped splices
2	Cable PVC AWG20, 3x crimped splices

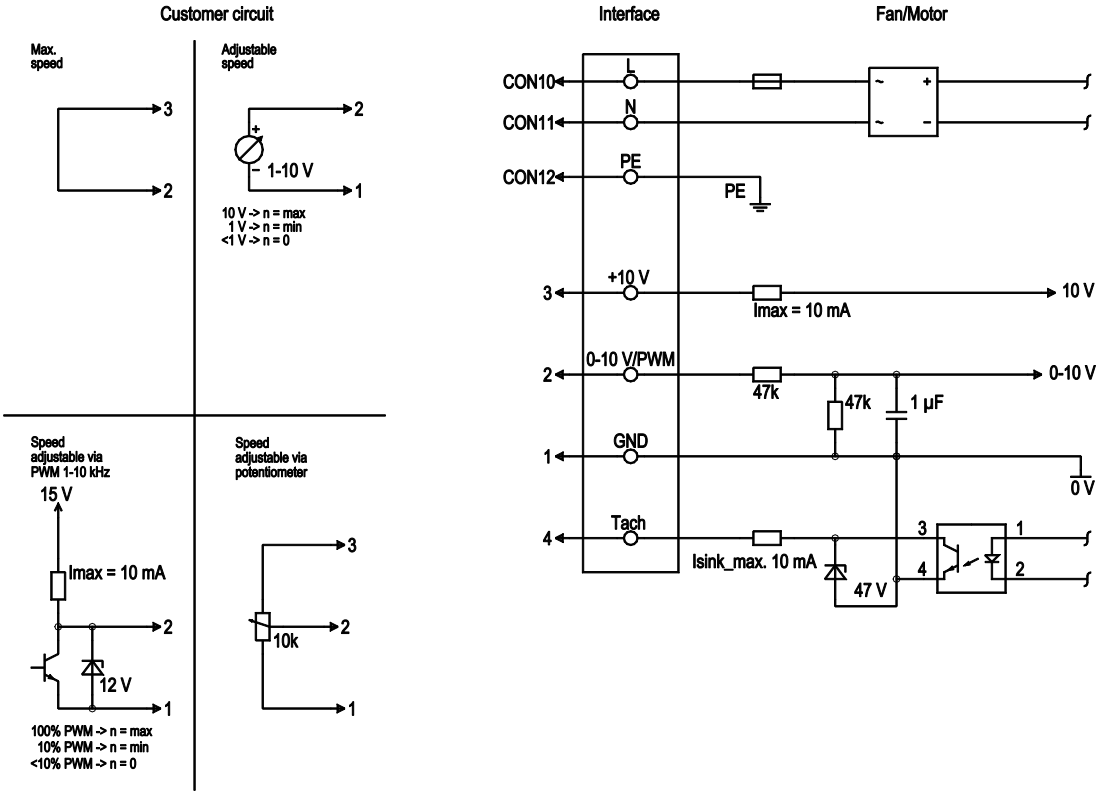
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Connection diagram



No.	Conn.	Designation	Color	Function/assignment
	CON10	L	black	Supply connection, power supply, phase, see nameplate for voltage range
	CON11	N	blue	Supply connection, power supply, neutral conductor, see nameplate for voltage range
	CON12	PE	green/yellow	Ground connection
	2	0- 10V PWM	yellow	0-10 V / PWM control input, Ri=100 kΩ, SELV
	4	Tach	white	Tach output, open collector, 1 pulse per revolution, Isink max = 10 mA, SELV
	3	+10 V	red	Fixed voltage output 10 VDC +/-3 %, Imax. 10 mA, short-circuit-proof, power supply for ext. devices (e.g. pot), SELV
	1	GND	blue	Reference ground for control interface, SELV

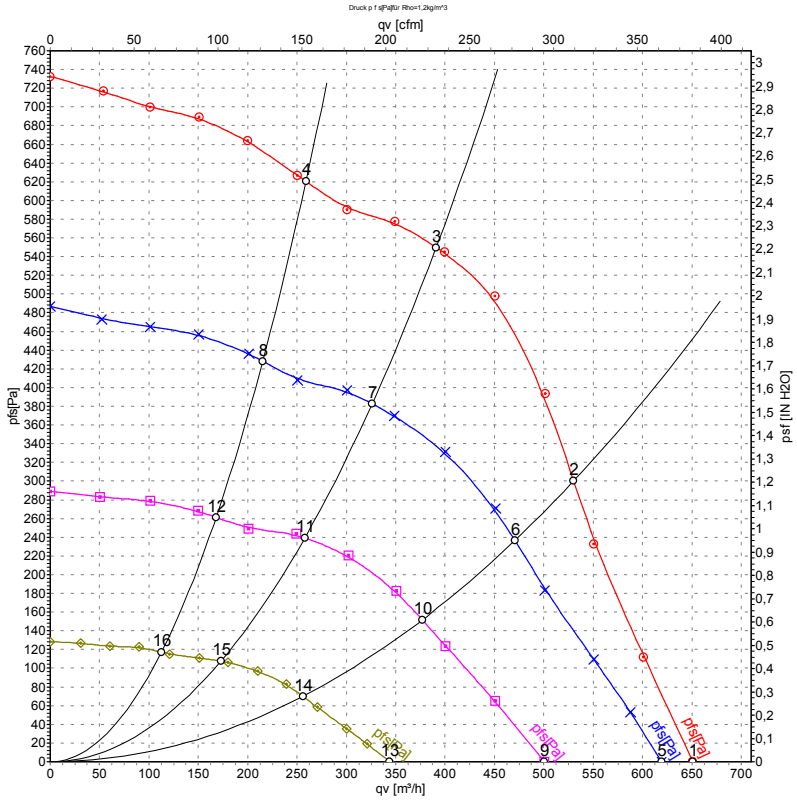
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Curves: Air performance 50 Hz



Measurement: LU-139319-1
Measurement: LU-139320-1
Measurement: LU-139321-1
Measurement: LU-139322-1

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebm-papst. Intake sound level: Sound power level according to ISO 13347 / sound pressure level measured at 1 m distance from fan axis. The values given are valid under the specified measuring conditions and may vary due to conditions of installation. For deviations from the standard configuration, the parameters have to be checked on the installed unit.

Measured values

	U	f	n	P_{ed}	I	qv	p_{fs}	qv	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa	CFM	inH2O
1	230	50	2100	170	1.35	650	0	385	0.00
2	230	50	2380	163	1.31	530	300	310	1.20
3	230	50	2680	144	1.18	390	550	230	2.21
4	230	50	2815	112	0.91	260	620	150	2.49
5	230	50	1985	144	1.17	620	0	365	0.00
6	230	50	2125	114	0.94	470	237	275	0.95
7	230	50	2260	86	0.73	325	383	190	1.54
8	230	50	2355	67	0.56	215	428	125	1.72
9	230	50	1625	77	0.64	500	0	295	0.00
10	230	50	1715	61	0.52	375	152	220	0.61
11	230	50	1795	45	0.39	260	240	150	0.96
12	230	50	1850	34	0.30	170	261	100	1.05
13	230	50	1130	27	0.24	345	0	200	0.00
14	230	50	1175	22	0.20	255	70	150	0.28
15	230	50	1220	17	0.16	175	108	100	0.43
16	230	50	1250	14	0.14	115	117	65	0.47

U = Power supply · f = Frequency · n = Speed (rpm) · P_{ed} = Power consumption · I = Current draw · qv = Air flow · p_{fs} = Pressure increase

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